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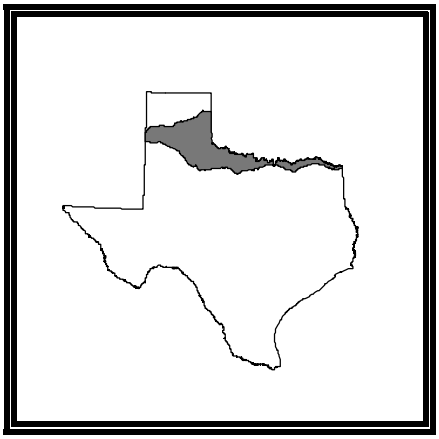
Basin 02
Red River



Red River Basin Narrative Summary

Second in length of Texas rivers only to the Rio Grande, the Red River originates in the high plains of eastern New Mexico and flows eastward across the Caprock Escarpment to form the Texas-Oklahoma border for 400 miles. It continues as the Texas-Arkansas border for 40 miles before it flows into Arkansas. Total basin drainage area in Texas is 24,463 square miles. Major tributaries to the Red River are North Fork of the Red River, Pease River, and the Wichita River.

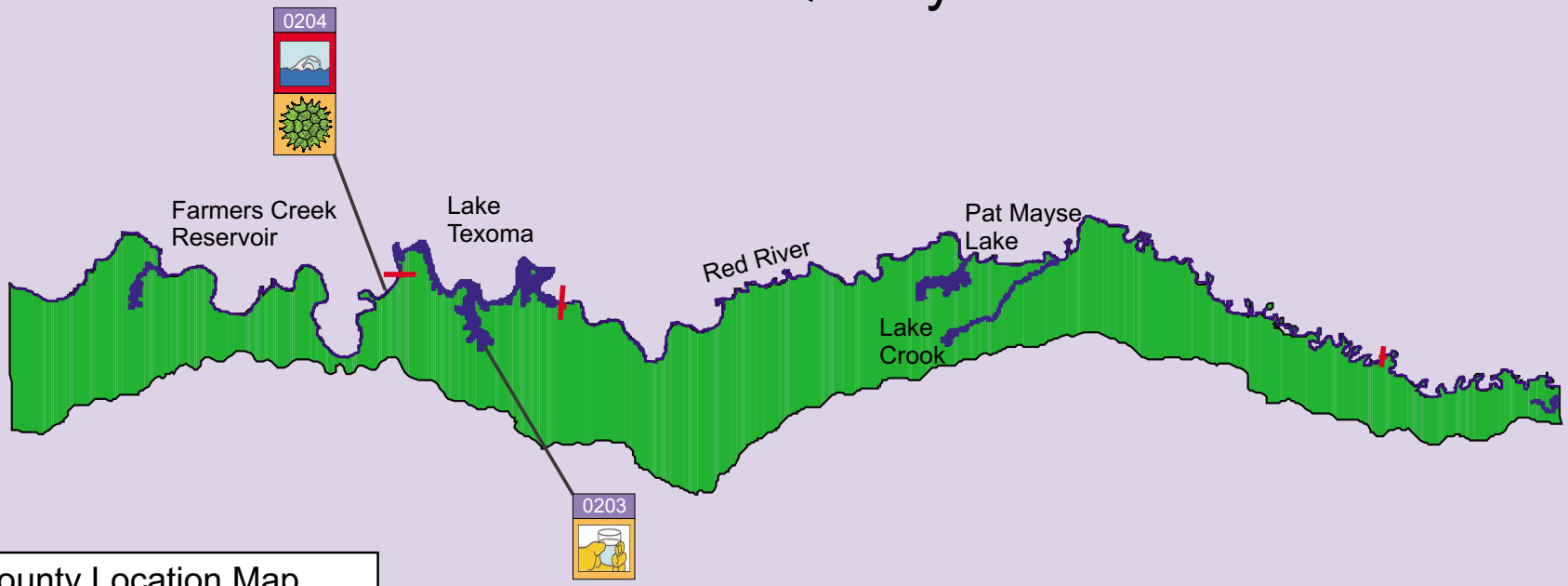
The Red River has been divided into 29 segments, which consist of 1,616 stream miles and 11 major reservoirs, which cover 145,169 acres. Forty-nine surface water quality monitoring stations at which water quality data are collected have been established in the basin.

The economy of the area is based on oil and gas production, manufacturing, tourism, and agriculture in the western portion of the basin where extensive crop irrigation occurs. Larger cities in the basin include Amarillo, Wichita Falls, Sherman, and Denison.

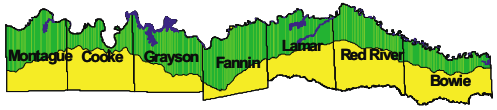
Under low flow conditions, excessive concentrations of total dissolved solids, sulfate, and chloride are a general problem in most streams of the Red River Basin. The high salt concentrations are caused, in large part, by natural conditions due to the presence of salt water springs, seeps, and gypsum outcrops. Salt water springs are located in the western portion of the basin in the upper reaches of the Wichita River, the North and South Forks of the Pease River, and the Little Red, which is a tributary to the Prairie Dog Town Fork of the Red River. Gypsum outcrops are found in the area ranging westward from Wichita County to the High Plains Caprock Escarpment. The water from these areas usually contains extremely high levels of dissolved solids. At times, the total dissolved solids are comparable to those found in sea water. The quality of the water gradually improves downstream before the entrance to Lake Texoma on the main stem of the Red River. Tributary inflow to Lake Texoma reduces the total dissolved solids concentration before being released from the reservoir.

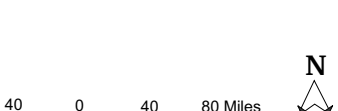
Occasional violations of the standards occur throughout the basin, but are usually the result of natural conditions. Low dissolved oxygen levels in the Little Wichita River are primarily due to the sluggish nature of the stream, lack of inflow, and low reaeration capacity. Elevated water temperatures occur during summer months in stream segments with clear, shallow water where energy from the sun is easily absorbed. During periods of low flow and high evaporation, many shallow stretches of the river exhibits wide swings in dissolved oxygen due to high rates of algal metabolism. Elevated fecal coliform densities found in tributary streams originate mostly from unidentified nonpoint sources.

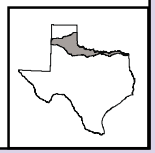
Lower Red River Basin
Identified Water Quality Issues



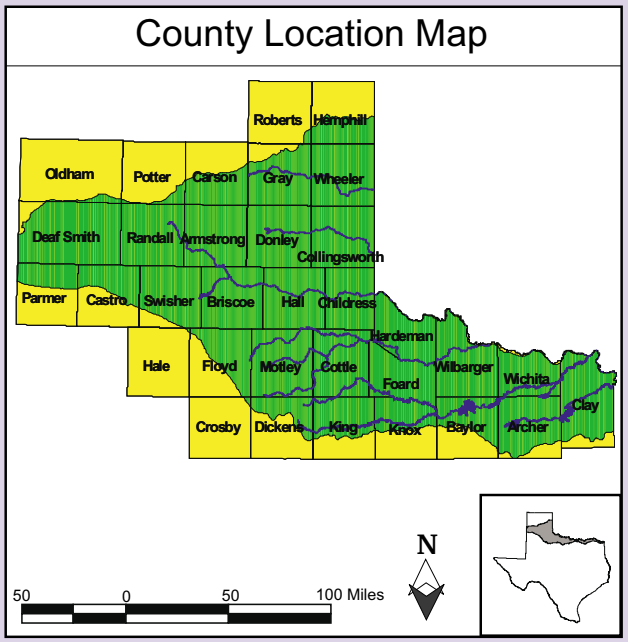
County Location Map

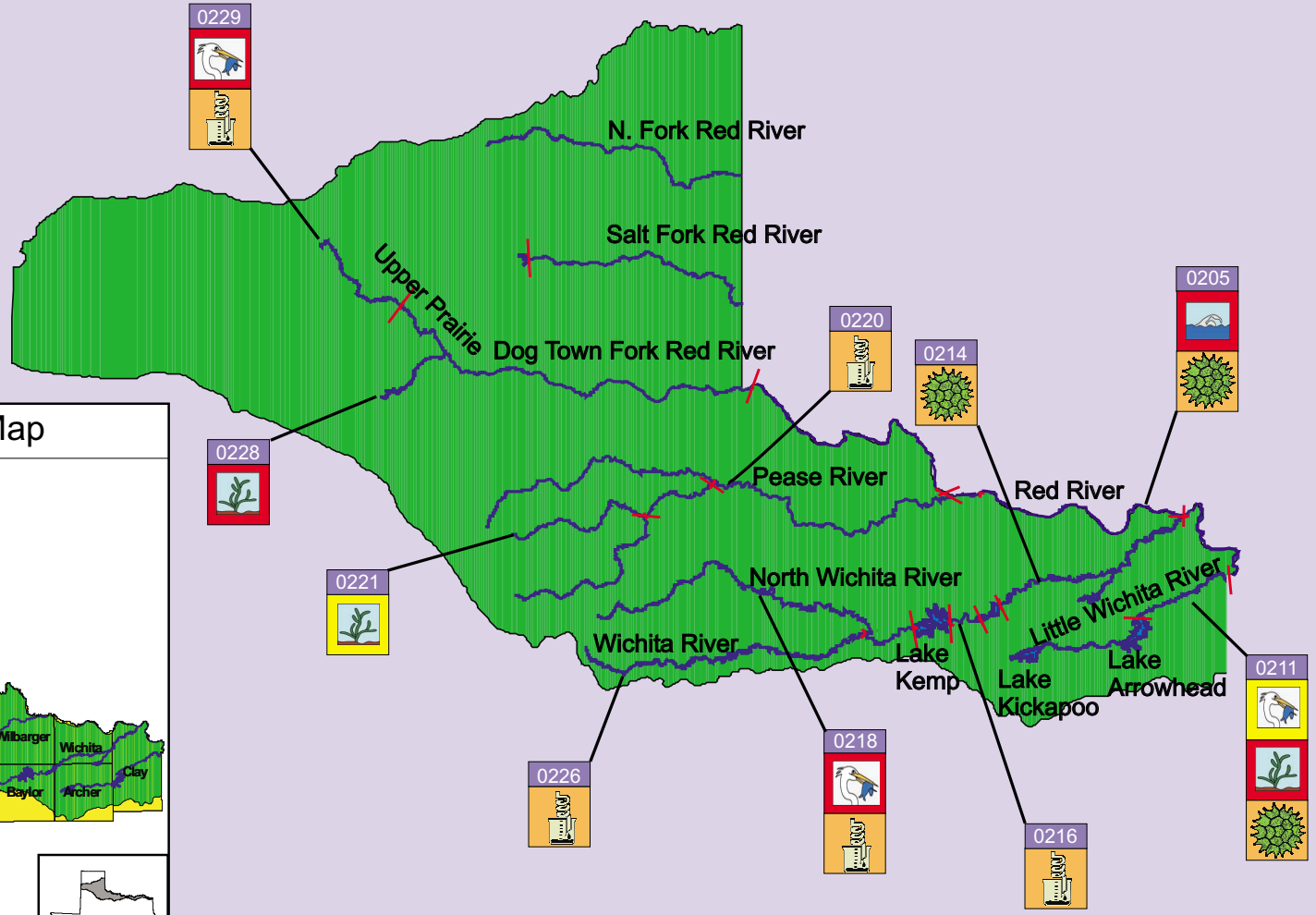




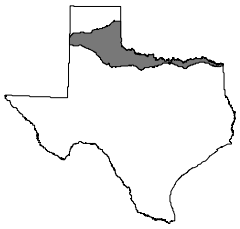


Upper Red River Basin
Identified Water Quality Issues



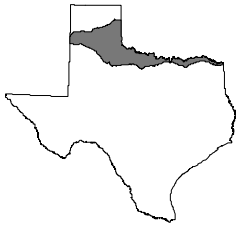


Red River Basin Graphical Summary

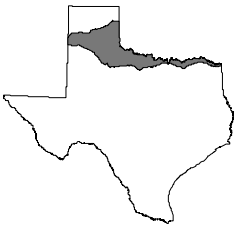
Basin Map	Water Bodies									
	**Segment 0201** Lower Red River	**Segment 0201A** Mud Creek	**Segment 0202** Red River Below Lake Texoma	**Segment 0202A** Bois D'Arc Creek	**Segment 0202D** Pine Creek	**Segment 0202E** Post Oak Creek	**Segment 0203** Lake Texoma	**Segment 0203A** Big Mineral Creek	**Segment 0204** Red River Above L. Texoma	**Segment 0205** Red River Below Pease River
DESIGNATED USE SUPPORT										
Contact Recreation	S	NA	S	S	N	NA	NA	N	N	N
Noncontact Recreation	X	X	X	X	X	X	X	X	X	X
Public Water Supply	S	X	S	X	X	X	S	X	X	X
Fish Consumption										
Human Health	NA	NA	S	NA	NA	NA	NA	NA	NA	S
Advisories/Closures	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aquatic Life										
Dissolved Oxygen (Grab)	S	S	S	S	S	S	NA	S	S	S
Dissolved Oxygen (24-Hour)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals in Water	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organics in Water	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sediment Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Macrobenthos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fish	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GENERAL USE SUPPORT										
Water Temperature	S	X	S	X	X	X	NA	X	S	S
pH	S	X	S	X	X	X	NA	X	S	S
Chloride	S	X	S	X	X	X	NA	X	S	S
Sulfate	S	X	S	X	X	X	NA	X	S	S
Total Dissolved Solids	S	X	S	X	X	X	NA	X	S	S

S = Support; P = Partial Support; N = Nonsupport; T = Threatened; NC = No Concern; C = Concern;
NA = Not Assessed; X = Not Applicable

Red River Basin Graphical Summary (Continued)

Basin Map	Water Bodies									
	**Segment 0201** Lower Red River	**Segment 0201A** Mud Creek	**Segment 0202** Red River Below Lake Texoma	**Segment 0202A** Bois D'Arc Creek	**Segment 0202D** Pine Creek	**Segment 0202E** Post Oak Creek	**Segment 0203** Lake Texoma	**Segment 0203A** Big Mineral Creek	**Segment 0204** Red River Above L. Texoma	**Segment 0205** Red River Below Pease River
WATER QUALITY CONCERNS										
Contact Recreation	X	NA	X	X	X	NA	NA	X	X	X
Noncontact Recreation	X	X	X	X	X	X	X	X	X	X
Fish Tissue	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sediment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Narrative	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Nutrient Enrichment										
Ammonia Nitrogen	NC	NA	NC	NA	NA	NA	NA	NA	NC	NC
Nitrite + Nitrate Nitrogen	NC	NA	NC	NA	NA	NA	NA	NA	NC	NC
Orthophosphorus	NC	NA	NC	NA	NA	NA	NA	NA	NC	NC
Total Phosphorus	NC	NA	NC	NA	NA	NA	NA	NA	NC	NC
Chlorophyll *a*	NC	NA	NC	NA	NA	NA	NA	NA	C	C
Public Water Supply										
Finished Water Chloride	NC	X	NC	X	X	X	NA	X	X	X
Finished Water Sulfate	NC	X	NC	X	X	X	C	X	X	X
Finished Water TDS	NC	X	NC	X	X	X	C	X	X	X
Surface Water Chloride	NC	X	NC	X	X	X	NA	X	X	X
Surface Water Sulfate	NC	X	NC	X	X	X	NA	X	X	X
Surface Water TDS	NC	X	NC	X	X	X	NA	X	X	X
Aquatic Life										
Dissolved Oxygen	X	X	X	X	X	X	NC	X	X	X
Metals in Water	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Organics in Water	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sediment Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Red River Basin Graphical Summary

Basin Map	Water Bodies									
	**Segment 0206** Red River Above Pease River	**Segment 0206A** Groesbeck Creek	**Segment 0207** Lower Prairie Dog Fork Red River	**Segment 0207A** Buck Creek	**Segment 0208** Lake Crook	**Segment 0209** Pat Mayse Reservoir	**Segment 0210** Farmers Creek Reservoir	**Segment 0211** Little Wichita River	**Segment 0212** Lake Arrowhead	**Segment 0213** Lake Kickapoo
DESIGNATED USE SUPPORT										
Contact Recreation	S	NA	S	N	NA	NA	NA	S	NA	NA
Noncontact Recreation	X	X	X	X	X	X	X	X	X	X
Public Water Supply	X	X	X	X	S	S	S	S	S	S
Fish Consumption										
Human Health	NA	NA	S	NA	NA	NA	NA	NA	NA	NA
Advisories/Closures	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aquatic Life										
Dissolved Oxygen (Grab)	S	S	S	S	NA	NA	NA	P	NA	NA
Dissolved Oxygen (24-Hour)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals in Water	NA	NA	S	NA	NA	NA	NA	NA	NA	NA
Organics in Water	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sediment Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Macrobenthos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fish	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GENERAL USE SUPPORT										
Water Temperature	S	X	S	X	NA	NA	NA	S	NA	NA
pH	S	X	S	X	NA	NA	NA	S	NA	NA
Chloride	S	X	S	X	NA	NA	NA	S	NA	NA
Sulfate	S	X	S	X	NA	NA	NA	S	NA	NA
Total Dissolved Solids	S	X	S	X	NA	NA	NA	N	NA	NA

S = Support; P = Partial Support; N = Nonsupport; T = Threatened; NC = No Concern; C = Concern;
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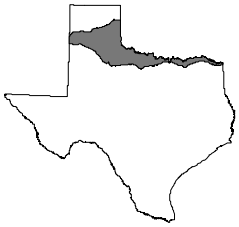
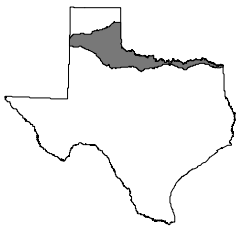
Red River Basin Graphical Summary (Continued)

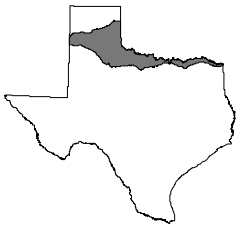
Basin Map	Water Bodies									
	**Segment 0206** Red River Above Pease River	**Segment 0206A** Groesbeck Creek	**Segment 0207** Lower Prairie Dog Fork Red River	**Segment 0207A** Buck Creek	**Segment 0208** Lake Crook	**Segment 0209** Pat Mayse Reservoir	**Segment 0210** Farmers Creek Reservoir	**Segment 0211** Little Wichita River	**Segment 0212** Lake Arrowhead	**Segment 0213** Lake Kickapoo
WATER QUALITY CONCERNS										
Contact Recreation	X	NA	X	X	NA	NA	NA	X	NA	NA
Noncontact Recreation	X	X	X	X	X	X	X	X	X	X
Fish Tissue	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sediment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Narrative	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Nutrient Enrichment										
Ammonia Nitrogen	NC	NA	NC	NA	NA	NA	NA	NC	NA	NA
Nitrite + Nitrate Nitrogen	NC	NA	NC	NA	NA	NA	NA	NC	NA	NA
Orthophosphorus	NC	NA	NC	NA	NA	NA	NA	NC	NA	NA
Total Phosphorus	NC	NA	NC	NA	NA	NA	NA	NC	NA	NA
Chlorophyll *a*	NC	NA	NC	NA	NA	NA	NA	C	NA	NA
Public Water Supply										
Finished Water Chloride	X	X	X	X	NC	NC	NC	NC	NC	NC
Finished Water Sulfate	X	X	X	X	NC	NC	NC	NC	NC	NC
Finished Water TDS	X	X	X	X	NC	NC	NC	NC	NC	NC
Surface Water Chloride	X	X	X	X	NA	NA	NA	NC	NA	NA
Surface Water Sulfate	X	X	X	X	NA	NA	NA	NC	NA	NA
Surface Water TDS	X	X	X	X	NA	NA	NA	NC	NA	NA
Aquatic Life										
Dissolved Oxygen	X	X	X	X	NA	NA	NA	X	NA	NA
Metals in Water	NA	NA	X	NA	NA	NA	NA	NA	NA	NA
Organics in Water	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sediment Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Red River Basin Graphical Summary

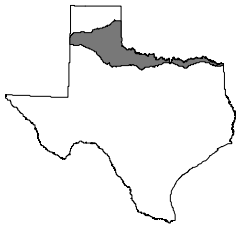
Basin Map	Water Bodies									
	**Segment 0214** Wichita River Below Diversion Lake Dam	**Segment 0214A** Beaver Creek	**Segment 0214B** Buffalo Creek	**Segment 0214C** Holliday Creek	**Segment 0215** Diversion Lake	**Segment 0216** Wichita River Below Lake Kemp Dam	**Segment 0217** Lake Kemp	**Segment 0218** Wichita/North Fork Wichita River	**Segment 0218A** Middle Wichita River	**Segment 0219** Lake Wichita
DESIGNATED USE SUPPORT										
Contact Recreation	S	NA	NA	NA	NA	S	NA	S	NA	NA
Noncontact Recreation	X	X	X	X	X	X	X	X	X	X
Public Water Supply	X	X	X	X	X	X	X	X	X	X
Fish Consumption										
Human Health	NA	NA	NA	NA	NA	S	NA	NA	NA	NA
Advisories/Closures	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aquatic Life										
Dissolved Oxygen (Grab)	S	P	S	S	NA	S	NA	S	S	NA
Dissolved Oxygen (24-Hour)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals in Water	NA	NA	NA	NA	NA	S	NA	N	S	NA
Organics in Water	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sediment Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Macrobenthos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fish	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GENERAL USE SUPPORT										
Water Temperature	S	X	X	NA	NA	S	NA	S	X	NA
pH	S	X	X	NA	NA	S	NA	S	X	NA
Chloride	S	X	X	NA	NA	S	NA	S	X	NA
Sulfate	S	X	X	NA	NA	S	NA	S	X	NA
Total Dissolved Solids	S	X	X	NA	NA	S	NA	S	X	NA

S = Support; P = Partial Support; N = Nonsupport; T = Threatened; NC = No Concern; C = Concern;
NA = Not Assessed; X = Not Applicable

Red River Basin Graphical Summary (Continued)

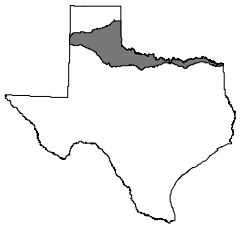
Basin Map	Water Bodies									
	**Segment 0214** Wichita River Below Diversion Lake Dam	**Segment 0214A** Beaver Creek	**Segment 0214B** Buffalo Creek	**Segment 0214C** Holliday Creek	**Segment 0215** Diversion Lake	**Segment 0216** Wichita River Below Lake Kemp Dam	**Segment 0217** Lake Kemp	**Segment 0218** Wichita/North Fork Wichita River	**Segment 0218A** Middle Wichita River	**Segment 0219** Lake Wichita
WATER QUALITY CONCERNS										
Contact Recreation	X	NA	NA	NA	NA	X	NA	X	NA	NA
Noncontact Recreation	X	X	X	X	X	X	X	X	X	X
Fish Tissue	NA	NA	NA	NA	NA	MA	NA	NA	NA	NA
Sediment	NC	NA	NA	NA	NA	NA	NA	NA	NA	NA
Narrative	NC	NC	NC	NC	NA	NC	NA	NC	NC	NC
Nutrient Enrichment										
Ammonia Nitrogen	NC	NA	NA	NA	NA	C	NA	C	C	NA
Nitrite + Nitrate Nitrogen	NC	NA	NA	NA	NA	NC	NA	NC	NC	NA
Orthophosphorus	NC	NA	NA	NA	NA	NC	NA	NC	NC	NA
Total Phosphorus	NC	NA	NA	NA	NA	NC	NA	NC	NC	NA
Chlorophyll *a*	C	NA	NA	NA	NA	NC	NA	NC	NA	NA
Public Water Supply										
Finished Water Chloride	X	X	X	X	X	X	X	X	X	X
Finished Water Sulfate	X	X	X	X	X	X	X	X	X	X
Finished Water TDS	X	X	X	X	X	X	X	X	X	X
Surface Water Chloride	X	X	X	X	X	X	X	X	X	X
Surface Water Sulfate	X	X	X	X	X	X	X	X	X	X
Surface Water TDS	X	X	X	X	X	X	X	X	X	X
Aquatic Life										
Dissolved Oxygen	X	X	X	X	NA	X	NA	X	X	NA
Metals in Water	NA	NA	NA	NA	NA	X	NA	X	X	NA
Organics in Water	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sediment Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Red River Basin Graphical Summary

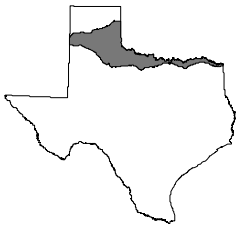
Basin Map 	Water Bodies									
	Segment 0220 Pease/North Fork Pease River	**Segment 0221** Middle Fork Pease River	**Segment 0222** Salt Fork Red River	**Segment 0222A** Lelia Lake Creek	**Segment 0223** Greenbelt Lake	**Segment 0224** North Fork Red River	**Segment 0225** McKinney Bayou	**Segment 0226** South Fork Wichita River	**Segment 0227** South Fork Pease River	**Segment 0228** Mackenzie Reservoir
DESIGNATED USE SUPPORT										
Contact Recreation	S	NA	S	S	S	S	NA	S	NA	S
Noncontact Recreation	X	X	X	X	X	X	X	X	X	X
Public Water Supply	X	X	X	X	S	X	S	X	X	S
Fish Consumption										
Human Health	S	NA	NA	NA	NA	NA	NA	S	NA	NA
Advisories/Closures	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Aquatic Life										
Dissolved Oxygen (Grab)	S	NA	S	S	S	S	NA	S	NA	S
Dissolved Oxygen (24-Hour)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals in Water	S	NA	NA	NA	NA	NA	NA	S	NA	NA
Organics in Water	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sediment Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Macrobenthos	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Fish	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
GENERAL USE SUPPORT										
Water Temperature	S	P	S	X	S	S	NA	S	NA	S
pH	S	NA	S	X	S	S	NA	S	NA	S
Chloride	S	NA	S	X	S	S	NA	S	NA	S
Sulfate	S	NA	S	X	S	S	NA	S	NA	S
Total Dissolved Solids	S	S	S	X	NA	S	NA	S	NA	N

S = Support; P = Partial Support; N = Nonsupport; T = Threatened; NC = No Concern; C = Concern;
NA = Not Assessed; X = Not Applicable

Red River Basin Graphical Summary (Continued)

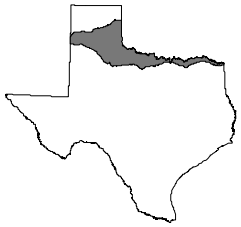
Basin Map	Water Bodies									
	**Segment 0220** Pease/North Fork Pease River	**Segment 0221** Middle Fork Pease River	**Segment 0222** Salt Fork Red River	**Segment 0222A** Lelia Lake Creek	**Segment 0223** Greenbelt Lake	**Segment 0224** North Fork Red River	**Segment 0225** McKinney Bayou	**Segment 0226** South Fork Wichita River	**Segment 0227** South Fork Pease River	**Segment 0228** Mackenzie Reservoir
WATER QUALITY CONCERNS										
Contact Recreation	X	NA	X	X	X	X	NA	X	NA	X
Noncontact Recreation	X	X	X	X	X	X	X	X	X	X
Fish Tissue	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sediment	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Narrative	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
Nutrient Enrichment										
Ammonia Nitrogen	C	NA	NC	NC	NC	NC	NA	C	NA	NC
Nitrite + Nitrate Nitrogen	NC	NA	NC	NC	NC	NC	NA	NC	NA	NC
Orthophosphorus	NC	NA	NC	NC	NC	NC	NA	NC	NA	NC
Total Phosphorus	NC	NA	NC	NC	NC	NC	NA	NC	NA	NC
Chlorophyll *a*	NC	NA	NC	NC	NC	NC	NA	NA	NA	NC
Public Water Supply										
Finished Water Chloride	X	X	X	X	NC	X	NC	X	X	NC
Finished Water Sulfate	X	X	X	X	NC	X	NC	X	X	NC
Finished Water TDS	X	X	X	X	NC	X	NC	X	X	NC
Surface Water Chloride	X	X	X	X	NC	X	NA	X	X	NC
Surface Water Sulfate	X	X	X	X	NC	X	NA	X	X	NC
Surface Water TDS	X	X	X	X	NA	X	NA	X	X	NA
Aquatic Life										
Dissolved Oxygen	NC	NA	X	X	X	X	NA	X	NA	X
Metals in Water	X	NA	NA	NA	NA	NA	NA	X	NA	NA
Organics in Water	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Water Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sediment Toxicity Tests	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Red River Basin Graphical Summary

Basin Map	Water Bodies									
	**Segment 0229** Upper Prairie Dog Town Fork Red River	**Segment 0229 A** Lake Tanglewood	**Segment 0299A** Sweetwater Creek							
DESIGNATED USE SUPPORT										
Contact Recreation	S	S	S							
Noncontact Recreation	X	X	X							
Public Water Supply	X	X	X							
Fish Consumption										
Human Health	NA	NA	NA							
Advisories/Closures	NA	NA	NA							
Aquatic Life										
Dissolved Oxygen (Grab)	N	S	S							
Dissolved Oxygen (24-Hour)	NA	NA	NA							
Metals in Water	NA	NA	NA							
Organics in Water	NA	NA	NA							
Water Toxicity Tests	NA	NA	NA							
Sediment Toxicity Tests	NA	NA	NA							
Macrobenthos	NA	NA	NA							
Fish	NA	NA	NA							
GENERAL USE SUPPORT										
Water Temperature	S	X	X							
pH	S	X	X							
Chloride	S	X	X							
Sulfate	S	X	X							
Total Dissolved Solids	S	X	X							

S = Support; P = Partial Support; N = Nonsupport; T = Threatened; NC = No Concern; C = Concern;
NA = Not Assessed; X = Not Applicable

Red River Basin Graphical Summary (Continued)

Basin Map 	Water Bodies									
	Segment 0229 Upper Prairie Dog Town Fork Red River	**Segment 0229 A** Lake Tanglewood	**Segment 0299A** Sweetwater Creek							
WATER QUALITY CONCERNS										
Contact Recreation	X	X	X							
Noncontact Recreation	X	X	X							
Fish Tissue	NA	NA	NA							
Sediment	NA	NA	NA							
Narrative	NC	NC	NC							
Nutrient Enrichment										
Ammonia Nitrogen	C	NC	NC							
Nitrite + Nitrate Nitrogen	C	C	NC							
Orthophosphorus	C	C	NC							
Total Phosphorus	C	C	NC							
Chlorophyll *a*	NC	C	NC							
Public Water Supply										
Finished Water Chloride	X	X	X							
Finished Water Sulfate	X	X	X							
Finished Water TDS	X	X	X							
Surface Water Chloride	X	X	X							
Surface Water Sulfate	X	X	X							
Surface Water TDS	X	X	X							
Aquatic Life										
Dissolved Oxygen	X	X	X							
Metals in Water	NA	NA	NA							
Organics in Water	NA	NA	NA							
Water Toxicity Tests	NA	NA	NA							
Sediment Toxicity Tests	NA	NA	NA							

Red River Basin

Segment 0201 - Lower Red River

Water body description:	From the Arkansas state line in Bowie County to the Arkansas-Oklahoma state line in Bowie County.
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	49.00 Miles

Use support summary:	Available data indicate that aquatic life, contact recreation, public water supply, and general uses are supported in the lower 25 miles. The fish consumption use was not assessed due to insufficient data.
Water quality concerns summary:	Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10123	Red River bridge on US 71 at Index, Arkansas

Wastewater dischargers

Permit type	Number of outfalls
Domestic	2

Red River Basin

Segment 0201A - Mud Creek (unclassified water body)

Water body description:	From the confluence of the Red River to the upstream perennial portion of the stream northwest of De Kalb in Bowie County
Water body classification:	Unclassified
Water body type:	Freshwater Stream
Water body length / area:	30.00 Miles

Use support summary:	Available data indicate that the aquatic life use is supported. The contact recreation and fish consumption uses were not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.

Monitoring sites used in the assessment

Station	Station Description
15319	Mud Creek at US 259 north of De Kalb

Red River Basin

Segment 0202 - Red River Below Lake Texoma

Water body description:	From the Arkansas-Oklahoma state line in Bowie County to Denison Dam in Grayson County.
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	194.00 Miles

Use support summary:	Available data indicate that all uses are supported.
Water quality concerns summary:	Available data indicate that there are no water quality concerns.
Additional information:	A wasteload evaluation (WLE) for dissolved oxygen was approved in 1998 and has been incorporated into the state Water Quality Management Plan. Advanced waste treatment is required for one or more dischargers.

Monitoring sites used in the assessment

Station	Station Description
10126	Red River bridge at US 271 at Arthur City
10125	Red River at US 259 north of De Kalb

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	1
Domestic	31
Industrial	8

Historical fish kills

Start date	Location	Fish killed	Suspected cause
09/17/1994	Post Oak Creek - at discharge of Sherman, TX	500	Low Dissolved Oxygen
09/23/1994	Choctaw Creek - at discharge from Oscar Meyer plant	50	Inorganic compound
04/15/1995	South end of Bringle Lake	3500	Disease

Historical fish kills, continued:

Start date	Location	Fish killed	Suspected cause
08/01/1995	Lake Texoma - at flood release tower on the dam	500	Inorganic compound
02/22/1996	Waterloo Lake in Denison on north shoreline	20	Inorganic compound
05/17/1996	Waterloo Lake - Denison, Texas	11	Disease
02/26/1998	Waterloo Lake - Denison, Texas	282	Disease
03/04/1998	Waterloo Lake - Denison, Texas	26	Disease
03/30/1998	Lake Waterloo - Denison, Texas	19	Disease

Red River Basin

Segment 0202A - Bois D' Arc Creek (unclassified water body)

Water body description:	From the confluence of the Red River to the upstream perennial portion of the stream southwest of Bonham in Fannin County
Water body classification:	Unclassified
Water body type:	Freshwater Stream
Water body length / area:	62.00 Miles
Use support summary:	Available data indicate that the aquatic life and contact recreation uses are supported. The fish consumption use was not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.

Monitoring sites used in the assessment

Station	Station Description
15318	Bois d'Arc Creek at FM 100 north of Honey Grove

Red River Basin

Segment 0202D - Pine Creek (unclassified water body)

Water body description: From the confluence of the Red River to the upstream perennial portion of the stream west of Paris in Lamar County

Water body classification: Unclassified

Water body type: Freshwater Stream

Water body length / area: 27.00 Miles

Use support summary: The contact recreation use is not supported due to elevated fecal coliform bacteria densities. The aquatic life use is supported. The fish consumption use was not assessed due to insufficient data.

Water quality concerns summary: Water quality concerns were not assessed due to insufficient data.

Additional information: A project is scheduled for fecal coliform bacteria to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at *www.tnrcc.state.tx.us/water/quality/tmdl/*.

Monitoring sites used in the assessment

Station	Station Description
10118	Pine Creek at FM 2648 near the city of Paris
10120	Pine Creek at US 271 near the city of Paris
14234	Pine Creek at FM 906 near Faulkner

Red River Basin

Segment 0202E - Post Oak Creek (unclassified water body)

Water body description:	From the confluence of Choctaw Creek southeast of Sherman to the upstream perennial portion of the stream northwest of Sherman in Grayson County
Water body classification:	Unclassified
Water body type:	Freshwater Stream
Water body length / area:	13.00 Miles
Use support summary:	Available data indicate that the aquatic life use is supported. The contact recreation and fish consumption uses were not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.

Monitoring sites used in the assessment

Station	Station Description
10115	Post Oak Creek at FM 1417 SE of Sherman

Red River Basin

Segment 0203 - Lake Texoma

Water body description: From Denison Dam in Grayson County to a point immediately upstream of the confluence of Sycamore Creek in Cooke County, up to normal pool elevation of 617 feet (impounds Red River).

Water body classification: Classified

Water body type: Reservoir

Water body length / area: 89,000 Acres

Use support summary: Available data indicate that the public water supply use is supported. Other uses were not assessed due to insufficient data.

Water quality concerns summary: Average sulfate and total dissolved solids in finished drinking water are concerns. Public water supply systems have experienced increased costs for demineralization due to high concentrations of dissolved solids.

Published studies

Publication	Date	Author
IMS 35 Lake Texoma	Dec. 1975	Pettit, J. (Region 4)

Wastewater dischargers

Permit type	Number of outfalls
Domestic	17
Industrial	1

Historical fish kills

Start date	Location	Fish killed	Suspected cause
07/26/1997	Lake Texoma - east side of peninsula where 120 dead ends	200	Disease

Red River Basin

Segment 0203A - Big Mineral Creek (unclassified water body)

Water body description:	From the confluence of Lake Texoma to the confluence of North/Middle/South Big Mineral Creeks north of Whitesboro in Grayson County
Water body classification:	Unclassified
Water body type:	Freshwater Stream
Water body length / area:	18.00 Miles

Use support summary:	The contact recreation use is not supported due to elevated fecal coliform densities. The aquatic life use is supported. The fish consumption use was not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.
Additional information:	A project is scheduled for fecal coliform bacteria to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at *www.tnrcc.state.tx.us/water/quality/tmdl/*.

Monitoring sites used in the assessment

Station	Station Description
15320	Big Mineral Creek at FM 901 north of Sadler
15750	Big Mineral Creek at US 377 north of Whitesboro

Red River Basin

Segment 0204 - Red River Above Lake Texoma

Water body description:	From a point immediately upstream of the confluence of Sycamore Creek in Cooke County to the confluence of the Wichita River in Clay County.
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	158.00 Miles

Use support summary:	The contact recreation use is not supported in the lower 25 miles due to elevated fecal coliform densities. The aquatic life and general uses are supported. The fish consumption use was not assessed due to insufficient data.
Water quality concerns summary:	Chlorophyll *a* is a concern in the upper 40 miles of the segment.
Additional information:	A project is scheduled for fecal coliform bacteria to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at *www.tnrcc.state.tx.us/water/quality/tmdl/*.

Monitoring sites used in the assessment

Station	Station Description
10132	Red River at IH 35 north of Gainesville
10133	Red River at US 81, 4.5 mi north of Ringgold

Published studies

Publication	Date	Author
IMS 67 Red River	June 1977	Dick, M. (Region 4)

Wastewater dischargers

Permit type	Number of outfalls
Domestic	3

Red River Basin

Segment 0205 - Red River Below Pease River

Water body description:	From the confluence of the Wichita River in Clay County to the confluence of the Pease River in Wilbarger County.
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	66.00 Miles

Use support summary:	The contact recreation use is not supported in the lower 28 miles due to elevated fecal coliform densities. All other uses are supported.
Water quality concerns summary:	Chlorophyll *a* is a concern in the lower 28 miles of the segment.
Additional information:	A project is scheduled for fecal coliform bacteria to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at *www.tnrcc.state.tx.us/water/quality/tmdl/*.

Monitoring sites used in the assessment

Station	Station Description
10134	Red River bridge on US 277-281 NE of Burkburnett

Wastewater dischargers

Permit type	Number of outfalls
Domestic	1
Industrial	2

Red River Basin

Segment 0206 - Red River Above Pease River

Water body description: From the confluence of the Pease River in Wilbarger County to a point immediately upstream of the confluence of Buck Creek in Hardeman County.

Water body classification: Classified

Water body type: Freshwater Stream

Water body length / area: 72.00 Miles

Use support summary: Available data indicate that the aquatic life, contact recreation, and general uses are supported. The fish consumption use was not assessed due to insufficient data.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10135	Red River at SH 6 north of Quanah

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	6
Domestic	16
Industrial	5

Red River Basin

Segment 0206A - Groesbeck Creek (unclassified water body)

Water body description:	From the confluence of Prairie Dog Town Fork Red River north of Quanah in Hardeman County to the upstream perennial portion of the stream east of Childress in Childress County
Water body classification:	Unclassified
Water body type:	Freshwater Stream
Water body length / area:	29.00 Miles
Use support summary:	Available data indicate that the aquatic life use is supported. Other uses were not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.

Monitoring sites used in the assessment

Station	Station Description
16000	South Groesbeck Creek at US 287, 4 mi west of Quanah in Hardeman county

Red River Basin

Segment 0207 - Lower Prairie Dog Town Fork Red River

Water body description:	From a point immediately upstream of the confluence of Buck Creek in Hardeman County to the confluence of a point 100 meters (110 yards) upstream of the confluence of Salt Fork in Armstrong County
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	115.00 Miles

Use support summary:	Available data indicate that all uses are supported.
Water quality concerns summary:	Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10136	Prairie Dog Town Fork Red River bridge at US 62-83 north of Childress
13637	Lower Prairie Dog Town Fork Red River at SH 207, 26 mi South of Claude

Wastewater dischargers

Permit type	Number of outfalls
Domestic	10

Historical fish kills

Start date	Location	Fish killed	Suspected cause
07/03/1995	unnammed water body - on Don Harrington Boy Scout Camp near Canyon, TX	300	Low Dissolved Oxygen

Red River Basin

Segment 0207A - Buck Creek (unclassified water body)

Water body description:	From Oklahoma state line east of Childress in Childress County to the upstream perennial portion of the stream west of Wellington in Collingsworth County
Water body classification:	Unclassified
Water body type:	Freshwater Stream
Water body length / area:	50.00 Miles

Use support summary:	The contact recreation use is not supported due to elevated fecal coliform densities. The aquatic life use is supported. The fish consumption use was not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.
Additional information:	A project is underway for fecal coliform bacteria to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at *www.tnrcc.state.tx.us/water/quality/tmdl/*.

Monitoring sites used in the assessment

Station	Station Description
15811	Buck Creek at US 83, 19mi north of Childress in Childress county

Red River Basin

Segment 0208 - Lake Crook

Water body description:	From Lake Crook Dam in Lamar County up to normal pool elevation of 476 feet (impounds Pine Creek)
Water body classification:	Classified
Water body type:	Reservoir
Water body length / area:	1,226 Acres

Use support summary:	The public water supply use is supported. Other uses were not assessed due to insufficient data.
Water quality concerns summary:	Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10137	Lake Crook mid-lake

Red River Basin

Segment 0209 - Pat Mayse Lake

Water body description:	From Pat Mayse Dam in Lamar County up to normal pool elevation of 451 feet (impounds Sanders Creek)
Water body classification:	Classified
Water body type:	Reservoir
Water body length / area:	5,993 Acres

Use support summary:	The public water supply use is supported. Other uses were not assessed due to insufficient data.
Water quality concerns summary:	Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10138	Pat Mayse Reservoir near dam

Wastewater dischargers

Permit type	Number of outfalls
Domestic	1

Red River Basin

Segment 0210 - Farmers Creek Reservoir

Water body description:	From Farmer Creek Dam in Montague County up to normal pool elevation of 827 feet (impounds Farmers Creek)
Water body classification:	Classified
Water body type:	Reservoir
Water body length / area:	1,470 Acres

Use support summary:	The public water supply use is supported. Other uses were not assessed due to insufficient data.
Water quality concerns summary:	Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10139	Farmers Creek Reservoir (Nocona Lake) mid-lake near dam

Red River Basin

Segment 0211 - Little Wichita River

Water body description:	From the confluence with the Red River in Clay County to Lake Arrowhead Dam in Clay County
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	47.00 Miles

Use support summary:	The aquatic life use is partially supported in the upper 25 miles due to depressed dissolved oxygen concentrations. General uses are not supported due to the elevated average total dissolved solids concentration. The public water supply and contact recreation uses are supported. The fish consumption use was not assessed due to insufficient data.
Water quality concerns summary:	Chlorophyll *a* is a concern in the upper 25 miles.
Additional information:	Projects are scheduled for dissolved oxygen and total dissolved solids to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at *www.tnrcc.state.tx.us/water/quality/tmdl/*.

Monitoring sites used in the assessment

Station	Station Description
10141	Little Wichita River at SH 148 NW of Henrietta

Published studies

Publication	Date	Author
IMS 61 Little Wichita River	Sept. 1976	Pettit, J. (Region 4)

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	1
Domestic	21

Historical fish kills

Start date	Location	Fish killed	Suspected cause
11/21/1995	Dry Fork of Little Wichita River at Henrietta	2,000	Low Dissolved Oxygen

Red River Basin

Segment 0212 - Lake Arrowhead

Water body description:	From Lake Arrowhead Dam in Clay County up to normal pool elevation of 926 feet (impounds the Little Wichita River).
Water body classification:	Classified
Water body type:	Reservoir
Water body length / area:	16,200 Acres

Use support summary:	The public water supply use is supported. Other uses were not assessed due to insufficient data.
Water quality concerns summary:	Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10142	Lake Arrowhead mid-lake near dam

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	23
Domestic	2

Red River Basin

Segment 0213 - Lake Kickapoo

Water body description:	From Kickapoo Dam in Archer County up to normal pool elevation of 1045 feet (impounds the North Fork Little Wichita River)
Water body classification:	Classified
Water body type:	Reservoir
Water body length / area:	6,200 Acres

Use support summary:	The public water supply use is supported. Other uses were not assessed due to insufficient data.
Water quality concerns summary:	Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10143	Lake Kickapoo near dam

Wastewater dischargers

Permit type	Number of outfalls
Domestic	1

Red River Basin

Segment 0214 - Wichita River Below Diversion Lake Dam

Water body description:	From the confluence with the Red River in Clay County to Diversion Dam in Archer County
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	111.00 Miles

Use support summary:	The aquatic life, contact recreation, and general uses are supported. The fish consumption use was not assessed due to insufficient data.
Water quality concerns summary:	Chlorophyll *a* is a concern in a 30-mile reach extending from FM 2393 in Clay County to SH 240 in Wichita County.
Additional information:	A wasteload evaluation (WLE) for dissolved oxygen was approved in 1988 and has been incorporated into the state Water Quality Management Plan. Advanced waste treatment is required for one or more dischargers.

Monitoring sites used in the assessment

Station	Station Description
10145	Wichita River at FM 810 west of Byers
10148	Wichita River at end of Eastland Lane
10149	Wichita River at River Road
10150	Wichita River at SH 240
10151	Wichita River at SH 11
10153	Wichita River at FM 369
10155	Wichita River at SH 25
15999	Wichita River at SE corner of Lucy Park in Wichita Falls, 1.0km upstream of US 287

Published studies

Publication	Date	Author
IS 38 Wichita River	April 1981	Ezell, C.
IS 87-07 Wichita River	July 1986	Petrick, D.

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	1
Domestic	7
Industrial	3

Red River Basin

Segment 0214A - Beaver Creek (unclassified water body)

Water body description:	From the confluence of the Wichita River west of Wichita Falls in Wichita County to the upstream perennial portion of the stream south of Vernon in Wilbarger County
Water body classification:	Unclassified
Water body type:	Freshwater Stream
Water body length / area:	48.00 Miles

Use support summary:	The aquatic life use is partially supported due to depressed dissolved oxygen concentrations. Other uses were not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.
Additional information:	A project is scheduled for dissolved oxygen to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at *www.tnrcc.state.tx.us/water/quality/tmdl/*.

Monitoring sites used in the assessment

Station	Station Description
15120	Beaver Creek at FM 2326, 10.5 km north of Kamay
15121	Beaver Creek at US 283/183 approximately 18.2 km south of Vernon

Red River Basin

Segment 0214B - Buffalo Creek (unclassified water body)

Water body description:	From the confluence of the Wichita River west of Wichita Falls in Wichita County to the upstream perennial portion of the stream east of Electra in Wichita County
Water body classification:	Unclassified
Water body type:	Freshwater Stream
Water body length / area:	9.00 Miles

Use support summary:	The aquatic life use is supported. Other uses were not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.

Monitoring sites used in the assessment

Station	Station Description
10097	Buffalo Creek at FM 1814
16036	Buffalo Creek at Coleman Ranch Road, 1.5 mi. SW of Iowa Park and 1 mi Upstream of FM 367

Red River Basin

Segment 0214C - Holliday Creek (unclassified water body)

Water body description:	From the confluence of the Wichita River in Wichita Falls in Wichita County to the upstream perennial portion of the stream southwest of Holliday in Archer County (includes Lake Wichita)
Water body classification:	Unclassified
Water body type:	Freshwater Stream
Water body length / area:	9.00 Miles
Use support summary:	The aquatic life use is supported. Other uses were not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.

Monitoring sites used in the assessment

Station	Station Description
10095	Holliday Creek at Harding St., Wichita Falls

Red River Basin

Segment 0215 - Diversion Lake

Water body description:	From Diversion Dam in Archer County to a point 1.5 km (0.9 miles) downstream of the confluence of Cottonwood Creek in Baylor County, up to the normal pool elevation of 1051 feet (impounds Wichita River).
Water body classification:	Classified
Water body type:	Reservoir
Water body length / area:	3,419 Acres

Use support summary:	Uses were not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.

Monitoring sites used in the assessment

Station	Station Description
10157	Diversion Lake near dam

Red River Basin

Segment 0216 - Wichita River Below Lake Kemp Dam

Water body description:	From a point 1.5 km (0.9 miles) downstream of the confluence of Cottonwood Creek in Baylor County to Lake Kemp Dam in Baylor County.
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	13.00 Miles
Use support summary:	Available data indicate that all uses are supported.
Water quality concerns summary:	Ammonia nitrogen is a concern.

Monitoring sites used in the assessment

Station	Station Description
10158	Wichita River at US 183-283 north of Mabelle

Red River Basin

Segment 0217 - Lake Kemp

Water body description:	From Lake Kemp Dam in Baylor County to a point 9.4 km (5.8 miles) downstream of the confluence of Crooked Creek in Baylor County, up to pool elevation of 1144 feet (impounds Wichita River)
Water body classification:	Classified
Water body type:	Reservoir
Water body length / area:	16,540 Acres

Use support summary:	Uses were not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.

Monitoring sites used in the assessment

Station	Station Description
10159	Lake Kemp near dam
10160	Lake Kemp at headwaters

Red River Basin

Segment 0218 - Wichita/North Fork Wichita River

Water body description:	From a point 9.4 km (5.8 miles) downstream of the confluence of Crooked Creek in Baylor County to a point 8.5 km (5.3 miles) downstream of the most upstream crossing of FM 193 in Dickens County.
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	144.00 Miles

Use support summary:	The aquatic life use is not supported due to exceedance of the chronic criterion by the average selenium concentration in water in the upper 29 miles. Contact recreation and general uses are supported. The fish consumption use was not assessed due to insufficient data.
Water quality concerns summary:	Ammonia nitrogen is a concern in the North Fork Wichita River.
Additional information:	A project is scheduled for selenium to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at *www.tnrcc.state.tx.us/water/quality/tmdl/*.

Monitoring sites used in the assessment

Station	Station Description
10161	Wichita River at FM 1919 north of Seymour
10162	North Wichita River at SH 6 south of Crowell and north of Truscott
15119	North fork Wichita River 6km downstream of Cottonwood Creek near Paducah, TX
15177	North Wichita River at FM 267, 16 mi SE of Crowell

Wastewater dischargers

Permit type	Number of outfalls
Domestic	5

Red River Basin

Segment 0218A - Middle Fork Wichita River (unclassified water body)

Water body description:	From the confluence of the North Wichita River southwest of Crowell in Foard County to the upstream perennial portion of the stream northeast of Guthrie in King County
Water body classification:	Unclassified
Water body type:	Freshwater Stream
Water body length / area:	47.00 Miles
Use support summary:	The aquatic life use is supported in the lower 25 miles. The contact recreation and fish consumption uses were not assessed due to insufficient data.
Water quality concerns summary:	Ammonia nitrogen is a concern in the lower 25 miles.

Monitoring sites used in the assessment

Station	Station Description
14900	Middle Wichita River 0.7 mi upstream of Forrer Creek, 19 mi. NE of Guthrie

Red River Basin

Segment 0219 - Lake Wichita

Water body description:	From Lake Wichita Dam in Wichita County up to the normal pool elevation of 980.5 feet (impounds Holliday Creek).
Water body classification:	Classified
Water body type:	Reservoir
Water body length / area:	2,200 Acres

Use support summary:	Uses were not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.

Published studies

Publication	Date	Author
IMS 43 Lake Wichita	Feb. 1976	Dick, M. (Region 4)

Wastewater dischargers

Permit type	Number of outfalls
Domestic	1

Red River Basin

Segment 0220 - Pease/North Fork Pease River

Water body description:	From the confluence with the Red River in Wilbarger County to 6.0 km (3.7 miles) upstream of the confluence of Dick Moore Canyon in Floyd County.
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	172.00 Miles

Use support summary:	Available data indicate that all uses are supported.
Water quality concerns summary:	Ammonia nitrogen is a concern in a 25-mile reach downstream of the North Fork confluence.

Monitoring sites used in the assessment

Station	Station Description
10165	Pease River bridge on US 283 north of Vernon
10167	Pease River bridge on FM 104 south of Kirkland

Published studies

Publication	Date	Author
IMS 69 Pease River	April 1977	Dutton, R. (Region 1)

Wastewater dischargers

Permit type	Number of outfalls
Domestic	13
Industrial	2

Red River Basin

Segment 0221 - Middle Fork Pease River

Water body description:	From the confluence with the North Fork Pease River in Cottle County to the confluence of Boggy Creek and Mott Creek in Motley County
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	66.00 Miles

Use support summary:	General uses are partially supported due to elevated water temperature. Other uses were not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.
Additional information:	A project is scheduled for water temperature to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at *www.tnrcc.state.tx.us/water/quality/tmdl/*.

Monitoring sites used in the assessment

Station	Station Description
10170	Pease River Middle Fork at SH 62-83 south of Childress

Wastewater dischargers

Permit type	Number of outfalls
Domestic	1

Red River Basin

Segment 0222 - Salt Fork Red River

Water body description:	From the Oklahoma state line in Collingsworth County to Greenbelt Dam in Donley County
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	76.00 Miles

Use support summary:	Available data indicate that the aquatic life, contact recreation, and general uses are supported in the lower 25 miles. The fish consumption use was not assessed due to insufficient data.
Water quality concerns summary:	Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10171	Salt Fork Red River bridge at US 83 north of Wellington

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	5
Domestic	3

Red River Basin

Segment 0222A - Lelia Lake Creek (unclassified water body)

Water body description:	From the confluence of the Salt Fork Red River north of Hedley in Donley County of the upstream perennial portion of the stream west of Hedley
Water body classification:	Unclassified
Water body type:	Freshwater Stream
Water body length / area:	17.00 Miles
Use support summary:	Available data indicate that the aquatic life and contact recreation uses are supported. The fish consumption use was not assessed due to insufficient data.
Water quality concerns summary:	Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10076	Lelia Lake Creek at FM 2471 NE of Lelia Lake

Red River Basin

Segment 0223 - Greenbelt Lake

Water body description: From Greenbelt Dam in Donley County up to normal pool elevation of 2664 feet (impounds Salt Fork Red River).

Water body classification: Classified

Water body type: Reservoir

Water body length / area: 2,025 Acres

Use support summary: Available data indicate that the aquatic life, contact recreation, public water supply and general uses are supported. The fish consumption use was not assessed due to insufficient data.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10173	Greenbelt Reservoir near intake structure at dam north of Clarendon
10176	Greenbelt Reservoir near confluence of Salt fork Red River and Reservoir

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	1

Red River Basin

Segment 0224 - North Fork Red River

Water body description: From the Oklahoma state line in Wheeler County to a point 4.0 km (2.4 miles) upstream of FM 2300 in Gray County.

Water body classification: Classified

Water body type: Freshwater Stream

Water body length / area: 83.00 Miles

Use support summary: Available data indicate that the aquatic life, contact recreation, and general uses are supported. The fish consumption use was not assessed due to insufficient data.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10178	North Fork Red River bridge at US 83 north of Shamrock

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	10
Domestic	17
Industrial	27

Historical fish kills

Start date	Location	Fish killed	Suspected cause
11/25/1995	Private lake - Harold Taylor lease near Lefors, TX on Danny Lewis ranch	100	Organic compound

Red River Basin

Segment 0225 - McKinney Bayou

Water body description: From the Arkansas state line in Bowie County to a point 100 meters (110 yards) upstream of FM 2300 in Gray County.

Water body classification: Classified

Water body type: Freshwater Stream

Water body length / area: 6.00 Miles

Use support summary: Available data indicate that the public water supply use is supported. Other uses were not assessed due to insufficient data.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Published studies

Publication	Date	Author
IMS 56 McKinney Bayou	June 1975	Petrick, D.
IS 90-02 McKinney Bayou	April 1990	Petrick, D.

Wastewater dischargers

Permit type	Number of outfalls
Domestic	3

Red River Basin

Segment 0226 - South Fork Wichita River

Water body description:	From the confluence with the North Fork Wichita River in Knox County to a point 15.0 km (9.3 miles) upstream of US 82 in Dickens County
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	144.00 Miles

Use support summary:	Available data indicate that all uses are supported.
Water quality concerns summary:	Ammonia nitrogen is a concern in a 25-mile reach extending upstream of the Knox/King County line.

Monitoring sites used in the assessment

Station	Station Description
10185	South Fork Wichita River at SH 6 north of Benjamin
10186	South Wichita River at Ranch Road 6.1 miles east of Guthrie
13634	South Wichita River on left bank, 170 ft upstream from Ranch Road, 1.6 mi downstream of Ox Yoke Creek, 13.7 mi Northwest of Benjamin
13636	South fork Wichita River at low flow dam, 1.0 mi downstream from Ranch Road crossing, 6.6 mi. east of Guthrie

Red River Basin

Segment 0227 - South Fork Pease River

Water body description:	From the confluence with the Middle Fork Pease River in Cottle County to the confluence of Wolf Creek and Rustler Creek in Motley County.
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	54.00 Miles

Use support summary:	Uses were not assessed due to insufficient data.
Water quality concerns summary:	Water quality concerns were not assessed due to insufficient data.

Wastewater dischargers

Permit type	Number of outfalls
Domestic	1

Red River Basin

Segment 0228 - Mackenzie Reservoir

Water body description: From Mackenzie Dam in Briscoe County up to the normal pool elevation of 3100 feet (impounds Tule Creek).

Water body classification: Classified

Water body type: Reservoir

Water body length / area: 896 Acres

Use support summary: General uses are not supported due to an elevated average total dissolved solids concentration. The aquatic life, public water supply, and contact recreation uses are supported. The fish consumption use was not assessed due to insufficient data.

Water quality concerns summary: Available data indicate that there are no water quality concerns.

Additional information: A project is scheduled for total dissolved solids to do one or more of the following: assess the relevant water quality standard; to confirm the impairment; to conduct a total maximum daily load (TMDL) to evaluate the causes and sources and allocate the allowable loading; or to correct the impairment under another program. For more information on specific TMDL projects, visit the TNRCC Web site at *www.tnrcc.state.tx.us/water/quality/tmdl/*.

Monitoring sites used in the assessment

Station	Station Description
10188	Lake Mackenzie mid-lake near intake tower
10190	Lake Mackenzie near headwater

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	8
Domestic	16
Industrial	1

Red River Basin

Segment 0229 - Upper Prairie Dog Town Fork Red River

Water body description:	From a point 100 meters (110 yards) upstream of the confluence of Salt Fork in Armstrong County to Lake Tanglewood Dam in Randall County
Water body classification:	Classified
Water body type:	Freshwater Stream
Water body length / area:	41.00 Miles

Use support summary:	The aquatic life use is not supported due to depressed dissolved oxygen concentrations in the upper 16 miles. Contact recreation and general uses are supported. The fish consumption use was not assessed due to insufficient data.
Water quality concerns summary:	Ammonia nitrogen, nitrite + nitrate nitrogen, orthophosphorus, and total phosphorus are concerns in the upper 16 miles.
Additional information:	A wasteload evaluation (WLE) for dissolved oxygen was approved in 1998 and has been incorporated into the state Water Quality Management Plan. Advanced waste treatment is required for one or more dischargers.

Monitoring sites used in the assessment

Station	Station Description
10191	Upper Prairie Dog Town Fork Red River at SH 217 in Palo Duro State Park at first low water crossing
13773	Upper Prairie Dog Town Fork Red River 0.5 km upstream of Amarillo Hollywood Rd WWTP outfall; 3.8 km downstream of Tanglewood Dam
13776	Upper Prairie Dog Town Fork Red River 2 km downstream of Amarillo Hollywood Rd WWTP outfall; 6.3 km downstream of Tanglewood Dam

Published studies

Publication	Date	Author
AS 106 isU Prairie Dog Town Fork RR	May 1992	Twidwell, S

Wastewater dischargers

Permit type	Number of outfalls
Agriculture	97
Domestic	39
Industrial	14

Red River Basin

Segment 0229A - Lake Tanglewood (unclassified water body)

Water body description: From Randall County Dam up to normal pool elevation south of Amarillo (impounds Prairie Dog Town Fork Red River)

Water body classification: Unclassified

Water body type: Reservoir

Water body length / area: 240 Acres

Use support summary: Available data indicate that the aquatic life use and contact recreation uses are supported. The fish consumption and general uses were not assessed due to insufficient data.

Water quality concerns summary: Nitrite + nitrate nitrogen, orthophosphorus, total phosphorus, and chlorophyll *a* are concerns.

Monitoring sites used in the assessment

Station	Station Description
10192	Lake Tanglewood near dam 8.4 mi south of Amarillo on FM 1541 then 2.0 mi east on FM 1151 then 2.1 mi south on private road

Red River Basin

Segment 0299A - Sweetwater Creek (unclassified water body)

Water body description:	From the Oklahoma stateline in Wheeler County to the upstream perennial portion of the stream northwest of Wheeler in Wheeler County (tributary of North Fork Red River)
Water body classification:	Unclassified
Water body type:	Freshwater Stream
Water body length / area:	56.00 Miles
Use support summary:	Available data indicate that the aquatic life and contact recreation uses are supported. The fish consumption and general uses were not assessed due to insufficient data.
Water quality concerns summary:	Available data indicate that there are no water quality concerns.

Monitoring sites used in the assessment

Station	Station Description
10069	Sweetwater Creek at Wheeler CR 29, north of SH 152 and 5.3 mi east of intersection of SH 152 and SH 592